



Climate Change Adaptation  
Workshop  
Homer Alaska

February 18th 2010

Alan J. Parks

***“ALL POLITICS IS LOCAL”***



“Tip O’Neil”

*“ALL POLITICS IS LOCAL”*

# Climate Change Policy

1979-2010

1979 - U.S. National Academy of  
Sciences (NAS) concluded

that a...

*“wait and see policy (on global  
climate change) may mean waiting  
until it is too late”  
to take meaningful action.*

## 1980 - U.S. Council on Environmental Quality (CEQ)

Concluded that the responsibility of  
the carbon dioxide problem is ours  
and we should accept it and act in a  
way that recognizes our role as  
trustee for future generations

1979 - President Jimmy Carter put solar panels on the White House roof and offered tax credits to anyone who purchased solar energy systems.



# 1986 - President Reagan Removes the Solar Panels President Carter installed



# The Conclusions of the Worlds most expert body on Climate Change, The Intergovernmental Panel on Climate Change (IPCC)

1991 - *“A clear scientific consensus has  
emerged in the 21st Century that the world’s  
climate is changing”*  
(IPCC 1991)

1995 - *“balance of the evidence on climate  
change showed a discernable human influence  
on climate”*  
(IPCC1995).



President Reagan  
was not alone

## 1997 S. Res. 98

*A resolution expressing the sense of the Senate regarding the conditions for the U.S. becoming a signatory to any international agreement on greenhouse gas emissions under the United Nations Framework Convention on Climate Change*



Sen. Byrd



Sen. Hagel

# Sen. Byrd and Sen. Hollings were not alone... 64 co-sponsors

## S. RES 98 passed 95-0 on July 25th 1997

[Sen Akaka, Daniel K. \[HI\]](#)  
[Sen Abraham, Spencer \[MI\]](#)  
[Sen Allard, Wayne \[CO\]](#)  
[Sen Ashcroft, John \[MO\]](#)  
[Sen Bennett, Robert F. \[UT\]](#)  
[Sen Bond, Christopher S. \[MO\]](#)  
[Sen Breaux, John B. \[LA\]](#)  
[Sen Brownback, Sam \[KS\]](#)  
[Sen Bryan, Richard H. \[NV\]](#)  
[Sen Burns, Conrad R. \[MT\]](#)  
[Sen Campbell, Nighthorse \[CO\]](#)  
[Sen Cleland, Max \[GA\]](#)  
[Sen Coats, Daniel \[IN\]](#)  
[Sen Cochran, Thad \[MS\]](#)  
[Sen Conrad, Kent \[ND\]](#)  
[Sen Coverdell, Paul \[GA\]](#)  
[Sen Craig, Larry E. \[ID\]](#)  
[Sen DeWine, Mike \[OH\]](#)  
[Sen Domenici, Pete V. \[NM\]](#)  
[Sen Dorgan, Byron L. \[ND\]](#)  
[Sen Durban, Richard \[IL\]](#)

[Sen Smith, Bob \[NH\]](#)  
[Sen Smith, Gordon H. \[OR\]](#)  
[Sen Specter, Arlen \[PA\]](#)  
**[Sen Stevens, Ted \[AK\]](#)**  
[Sen Thomas, Craig \[WY\]](#)  
[Sen Thompson, Fred \[TN\]](#)  
[Sen Thurman, Strom \[SC\]](#)  
[Sen Warner, John \[VA\]](#)  
[Sen Ensue, Michael B. \[WY\]](#)  
[Sen Faircloth, Lauch \[NC\]](#)  
[Sen Ford, Wendell H. \[KY\]](#)  
[Sen Frist, William H. \[TN\]](#)  
[Sen Glenn, John H., Jr. \[OH\]](#)  
[Sen Gorton, Slade \[WA\]](#)  
[Sen Gramm, Phil \[TX\]](#)  
[Sen Grams, Rod \[MN\]](#)  
[Sen Grassley, Chuck \[IA\]](#)  
[Sen Hagel, Chuck \[NE\]](#)  
[Sen Hatch, Orrin G. \[UT\]](#)  
[Sen Helms, Jesse \[NC\]](#)  
[Sen Hollings, Ernest F. \[SC\]](#)  
[Sen Hutchinson, Tim \[AR\]](#)

[Sen Durban, Bailey \[TX\]](#)  
[Sen Inhofe, James M. \[OK\]](#)  
[Sen Inouye, Daniel K. \[HI\]](#)  
[Sen Johnson, Tim \[SD\]](#)  
[Sen Hutchinson, Dirk \[ID\]](#)  
[Sen Landrieu, Mary L. \[LA\]](#)  
[Sen Levin, Carl \[MI\]](#)  
[Sen Lott, Trent \[MS\]](#)  
[Sen Lugar, Richard G. \[IN\]](#)  
[Sen McConnell, Mitch \[KY\]](#)  
[Sen Mukluks, Barbara A. \[MD\]](#)  
[Sen Moseley-Braun, Carol \[IL\]](#)  
**[Sen Murkowski, Frank \[AK\]](#)**  
[Sen, Mukluks Don \[OK\]](#)  
[Sen Reid, Harry \[NV\]](#)  
[Sen Nickles, Charles S. \[VA\]](#)  
[Sen Roberts, Pat \[KS\]](#)  
[Sen Robb, John D. \[WV\]](#)  
[Sen Rockefeller, Rick \[PA\]](#)  
[Sen Sessions, Jeff \[AL\]](#)  
[Sen Shelby, Richard C. \[TX\]](#)

2001 - IPCC releases its third assessment report, this assessment confirmed and expanded upon previous IPCC reports that there was additional evidence human-induced climate change had already become noticeable around the world (IPCC 2001)

# 2001 - President George W. Bush withdrew the U.S. from the Kyoto Protocol.



In September 2006 Homer Mayor Jim Hagel attended a national conference in Horanday titled,

*“Strengthening Our Cities: Mayors Responding to Global Climate Change.”*

Mayor Girdwood returns to Homer passionate about the City of Homer taking action to mitigate and adapt to global climate change





In January 2007 Mayor  
Hornaday and the Homer  
City Council established the  
Global Warming Task Force  
(GWTF)











Sustainable Homer  
Sustainable Kodiak  
Sustainable Sitka  
Kenai Resilience

And many other organizations and individuals  
around Alaska

2007-The GWTF was task to make recommendations to the Homer City Council on ways the City of Homer can

- Reduce greenhouse gas emissions
- Reduce the impacts of global climate change on its environment, economy infrastructure, and future development

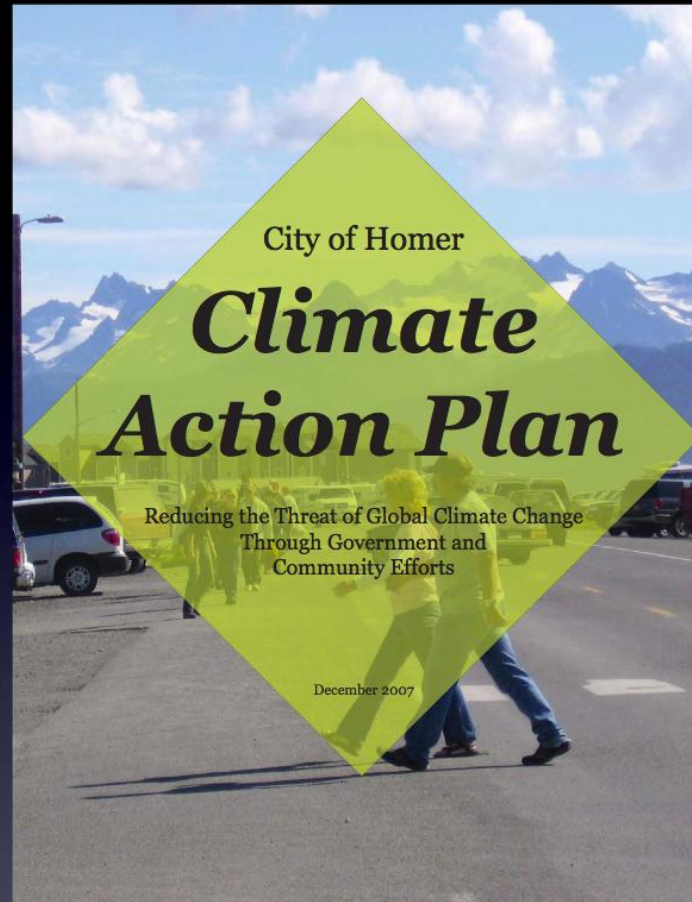
In the spring of 2007 the, IPCC released its forth assessment and concluded with a confidence greater than 90 percent that human activities are the primary cause of the atmospheric build-up of green house gases... (IPCC 2007).



# 2007-The IPCC Emission Reductions

- 25-40 percent less by 2020 compared to 1990 levels
- Downward trend of emissions must begin no later than 2015
- By 2050 reductions would have to be around 80 percent compared to 1990 levels.

Over 20 of the world's most prestigious National Academies of Science (NAS) (including all G8 NAS) issued a joint statement echoing the IPCC's conclusion of the need to implement significant reductions in greenhouse gas emissions by 2020 and beyond (NA 2005)



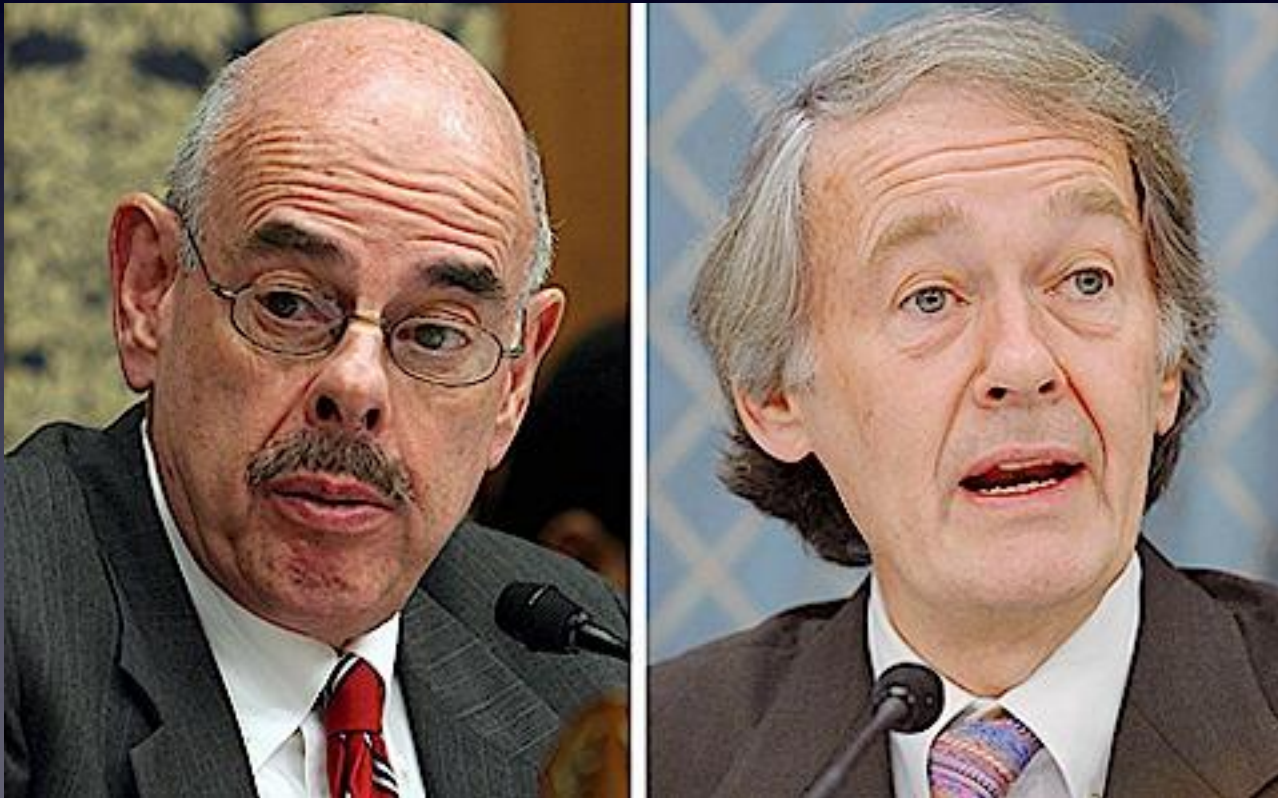
Homer City Council passed a  
Climate Action Plan in December  
2007



June 26th 2009

Waxman/Markey

American Clean Energy And Security Act,  
ACES, S-2454 passes the U.S. House of  
Representatives



# ACES Key Provisions

## **Renewable Electricity Standard**

Requires electric utilities to meet 20% of their electricity demand renewable energy sources and energy efficiency by 2020.

- Invests \$190 billion in new clean energy technologies including energy efficiency and renewable energy (\$90 billion in new investments by 2025),
- Carbon capture and sequestration (\$60 billion),
  - Electric and other advanced technology vehicles (\$20 billion), and basic scientific research and development (\$20 billion).

# ACES Key Provisions

- Mandates new energy saving standards for buildings, appliances, and industry.

# ACES Key Provisions

- The bill would put a cap on emissions
- The bill covers 85 percent of the overall economy, including electricity producers, oil refineries, natural gas suppliers, and energy-intensive industries like iron, steel, cement, and paper manufacturers

# Emission Cuts

- Emission cuts would start in 2012
- The Cap and Trade program would be completely phased in by 2016

he goals for U.S. emission reductions below 2005 leve

- 3 percent cut by 2012
- 17 percent by 2020
- 42 percent by 2030
- More than 80 percent by 2050

# Offset s

Allows 1 billion tons of domestic offsets and up to 1.5 billion tons of international offsets – with the sum no more than 2 billion tons annually

# Pollution Allowances

Only Auctions 15 percent of Permits at First  
Gives 2 percent of Permits to Oil Refiners and  
5 percent to Coal Power Plants and 5 percent of permits  
every year to carbon capture and storage



There are good provisions in the Waxman/Markey bill, but they are shadowed by the overwhelming concerns of Offsets and Cap & Trade



Sen. Kerry and Sen. Boxer

# Boxer/Kerry

## The “Clean Energy Jobs and America’s Power Act”

largely mirrors the House climate bill,  
with a cap and trade program

Re-dubbed here a “Pollution Reduction  
and Investment system”

“More aggressive” 2020 emissions  
reduction targets:

20% below 2005 levels vs. the 17%  
reduction targeted by the House  
bill.

The bill also preserves the ability for  
EPA to separately regulate  
emissions from greenhouse gases  
where necessary under the Clean  
Air Act

# Offset

S

Allows 2 billion tons of offsets each year.

Regulated firms could use 500 million tons of international offsets and 1.5 billion tons of domestic offsets each year, with the limit on international offsets raised to 750 million tons if supplies of domestic offsets are limited.

As in the Waxman/Markey There  
are good provisions in the  
bill, but they are shadowed by the  
overwhelming concerns of Offsets  
and Cap & Trade

# Pollution Allowances

Most of the key details about how to distribute the hundreds of billions (\$) in carbon allowance value are left blank

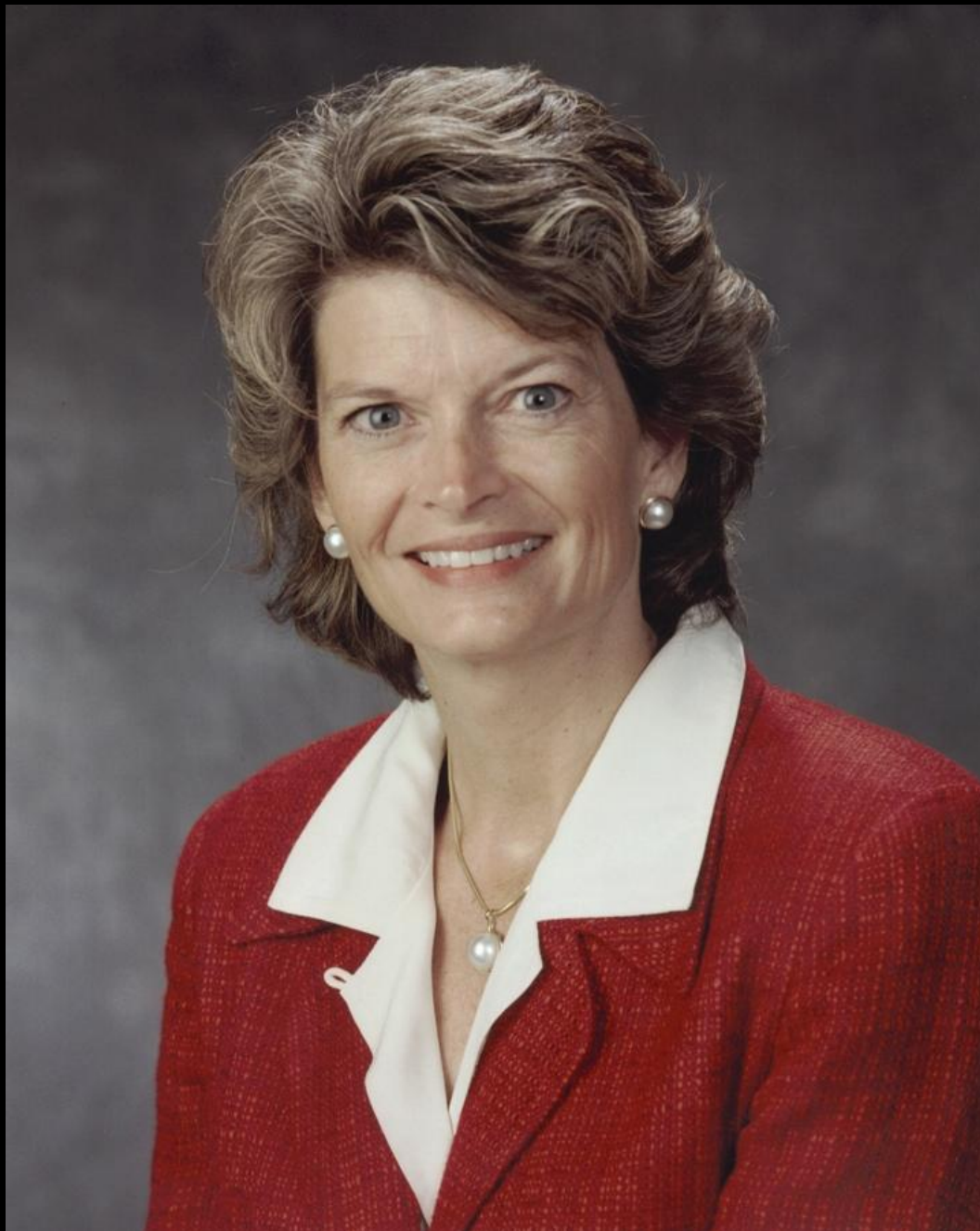
One big exception is a provision that would dedicate 25% of the allowance revenue raised each year to deficit reduction





Sen Kerry, Lindsey Graham and Joe Lieberman







Sen Murkowski introduced a resolution  
of disapproval to Block the EPA from  
Regulating greenhouse gases  
Under the “Clean Air Act”



Sen. Collins (R-MA) and Sen. Murkowski (D-WA)

CARBON LIMITS AND ENERGY FOR  
AMERICA'S RENEWAL, S-2877  
*"CLEAR ACT"*

# CLEAR Key Provisions

## Pollution Allowances/Permits

- All permits are purchased at auction for each ton of carbon dioxide (CO<sub>2</sub>) they emit. No permits are given away for free.
- In 2012 the auction price of CO<sub>2</sub> per ton is not less than \$7 and not more than \$21. For subsequent years, a formula is established to adjust the floor and ceiling prices upwards.

# CLEAR Key Provisions

Is Limited to Producers who  
Introduce Fossil Fuels into the  
System at the Well Head or Mine  
this approach is referred to as an  
“Upstream “ approach

# CLEAR Key Provisions

## Dividends

75% of Revenues from Auction will be Deposited in a Fund and Distributed as Dividends for all.

25% of revenues from the auction of CO<sub>2</sub> emissions permits are available for Adaptation, Clean Energy Technologies, Helping Workers make the transition and more



# CLEAR Key Provisions

## Emission Cuts

- 5.9 Percent below 2005 levels in 2020
- 44.1 Percent below 2005 Levels in 2025
- 80.5 Percent below 2005 levels in 2050

# CLEAR Key Provisions

## Offsets

- Have no role toward meeting the fossil carbon cap

# Carbon Capture and Sequestration (CCS)

- Carbon allowances are granted for CCS.
- Intended as a incentive for the adoption of CCS technologies and a long term future for coal

# Emission Reductions Summery

- Emission reduction Goals of all bills are based on 2005 levels
- IPCC Recommendations are based on 1990 levels.

We can not address  
Ocean Acidification  
and Global Climate Change  
in a meaningful way with out addressing

- National Security
- Energy
- The Economy and Jobs

Why would Alaska  
Marine Conservation  
Council spend so  
much time on Climate  
Change?



1000 µm



Hopcroft/UAF/CoML



***Limacina helicina***  
Hopcroft UAF/CoML

# Ocean Acidification

A 10 percent loss of  
Pteropods

= A 20 percent loss of  
Pink Mature Salmon  
Weight



45,000 lb. - 20% = 9,000  
lb. @ projected 2010 X  
vessel prices .40 = \$3600





# Local Action



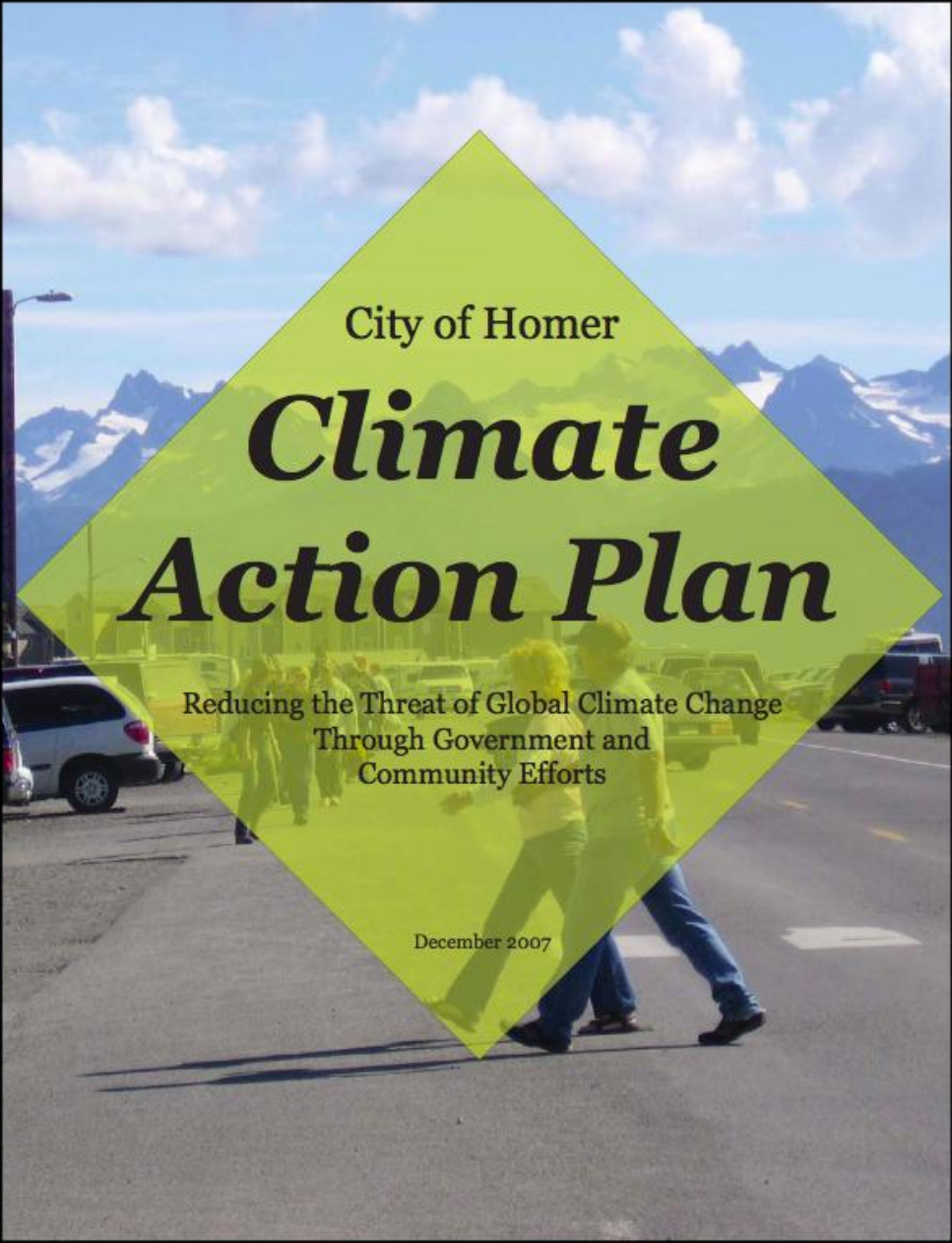












City of Homer

# *Climate Action Plan*

Reducing the Threat of Global Climate Change  
Through Government and  
Community Efforts

December 2007









Thank you